AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A speaker system comprising:

a speaker,

amplitude detecting means for detecting an amplitude value of a diaphragm of the speaker to produce an amplitude signal corresponding to the amplitude value; and

positive feed back means for positively feeding back the amplitude signal into a driving signal for driving the speaker~~.~~;

wherein the amplitude detecting means comprises:

velocity detecting means for detective a velocity of the diaphragm of the speaker to produce a velocity signal; and

integrating means for integrating the velocity signal to produce the amplitude signal;

wherein the integrating means is a first order low pass filter having a cutoff frequency that is lower than a lowest resonance frequency f_0 of the speaker.

2. (canceled).

3. (canceled).

4. (currently amended): A speaker system according to claim ~~3~~1, wherein the velocity detecting means detects the velocity based on a voltage applied to the speaker and a current flowing through the speaker.

5. (previously presented): A speaker system comprising:

a speaker,

a detecting circuit which detects an operational characteristic of a diaphragm of the speaker and outputs a corresponding detection signal;

a low pass filter which integrates the decision signal to generate an amplitude signal; and

a positive feed back circuit which positively feeds back the amplitude signal into a driving signal for driving the speaker,

wherein the low pass filter has a cutoff frequency that is lower than a lowest resonance frequency of the speaker.

6. (previously presented): A speaker system according to claim 5, wherein the detecting circuit detects the operational characteristic based on a voltage applied to the speaker and a current flowing through the speaker.

7. (previously presented): A speaker system according to claim 5, wherein the operational characteristic comprises velocity.

8. (currently amended): A speaker system comprising:

a speaker,

a detecting circuit which detects an operational characteristic of a diaphragm of the speaker and outputs a corresponding detection signal, wherein the detecting circuit detects the operational characteristic based on a voltage applied to the speaker and a current flowing through the speaker,

a low pass filter which integrates the detection signal to generate an amplitude signal; and

an positive feed back circuit which positively feed backs the amplitude signal into a driving signal for driving the speaker;

wherein the low pass filter has a cutoff frequency that is lower than a lowest resonance frequency of the speaker.

9. (canceled).

10. (previously presented): A speaker system according to claim 8, wherein the operational characteristic comprises velocity.

11. (currently amended): A speaker driving method comprising:

detecting an operational characteristic of a diaphragm of a speaker;

producing a detection signal based on said operational characteristic;

integrating the detection signal to produce an amplitude signal; and

positively feeding back the amplitude signal into a driving signal for driving the speaker;

wherein the detection signal is integrated by a low pass filter having a cutoff frequency that is lower than a lowest resonance frequency of the speaker.

12. (canceled).

13. (previously presented): A speaker driving method according to claim 11, wherein the operational characteristic is detected based on a voltage applied to the speaker and a current flowing through the speaker.

14. (previously presented): A speaker driving method according to claim 11, wherein the operational characteristic comprises velocity.

15. (currently amended): A speaker driving method comprising:

detecting an operational characteristic of a diaphragm of the speaker based on a voltage applied to the speaker and a current flowing through the speaker;

producing a corresponding detection signal based on said operational characteristic;

integrating the detection signal to generate an amplitude signal; and

positively feeding back the amplitude signal into a driving signal for driving the speaker~~.~~;

wherein the detection signal is integrated by a low pass filter having a cutoff frequency that is lower than a lowest resonance frequency of the speaker.

16. (canceled).

17. (previously presented): A speaker driving method according to claim 15, wherein the operational characteristic comprises velocity.